



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of

Salcudean, S., et al.

Application No. 09/307,023

Filed: May 7, 1999

For: CONTROLLER

Atty Docket No.: IMM1P066.RE

Examiner: K. Chang

Group Art Unit: 2673

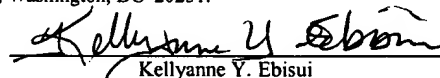
October 4, 2002

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Kellyanne Y. Ebisui

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Commissioner for Patents  
Washington, DC 20231

Dear Sir:

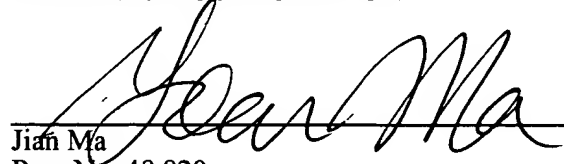
Transmitted herewith for the above-identified patent application is a Supplemental Information Disclosure Statement, Form 1449, cited references, and check for \$180.00 for the IDS filing fees are also submitted herewith.

- ☒ Attached is a check in the amount of \$180.00.
- ☒ If it is determined that any additional fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-1815 (Order No. IMM1P066.RE).

Respectfully submitted,

IMMERSION CORPORATION

By:

  
Jian Ma  
Reg. No. 48,820

Dated: October 4, 2002

Immersion Corporation  
801 Fox Lane  
San Jose, CA 95131  
(408) 350-8725  
Docket No. IMM1P066.RE



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Signed:

Kellyanne Y. Ebisui

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.56, §1.97 and §1.98

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Washington, DC 20231

Dear Sir:

The references listed in the attached PTO Form 1449, copies attached, may be material to examination of the above-identified patent application. Applicant submits these references in compliance with the duty of disclosure pursuant to 37 CFR §§1.56, 1.97, and 1.98. The Examiner is requested to make these citations of official record in this application.

This Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

Copies of the references are enclosed, as required under 37 CFR §§1.98. The references on the attached Form 1449 identified by an asterisk (\*), if any, were previously cited by or submitted to the

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Attorney Docket No. IMM1P066.RE

PTO in a prior application relied upon for an earlier filing date. Accordingly, in compliance with 37 CFR §§1.98 (d), copies of these references have not been provided.

This Supplemental Information Disclosure Statement is being timely filed under 37 CFR §§1.97 and, it is believed, is being filed:



☒ more than three months from the filing date of an application and after the mailing date of a first Office action on the merits, but before the mailing date of either a final action under section 1.113 or a notice of allowance under section 1.311 (whichever occurs first), and is accompanied by:

☒ the fee set forth in 37 CFR 1.17(p) for submission of an information disclosure statement under §1.97(c) (\$180.00).

☒ Attached is a check in the amount of \$180.00.


☒ If it is determined that any additional fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 50-1815 (Order No. IMM1P066.RE).

Respectfully submitted,

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **1** of **3**

### Complete if Known

Application Number	09/307,023
Filing Date	May 7, 1999
First Named Inventor	Salcudean et al.
Art Unit	2673
Examiner Name	K. Chang
Attorney Docket Number	IMM1P066.RE

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### U.S. PATENT DOCUMENTS

Examiner	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
	AA	3,220,121	11/30/1965	Cutler	
	AB	3,517,446	6/30/1970	Cortyon et al.	
	AC	3,623,064	11/23/1970	Kagan	
	AD	3,903,614	9/9/1975	Diamond et al	
	AE	4,236,325	10/2/1980	Hall et al.	
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	AN	3,157,853	11/17/1964	Hirsch	
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### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
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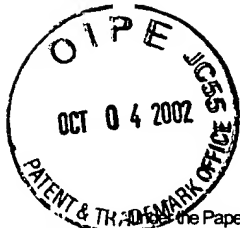
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 3

### Complete if Known

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First Named Inventor	Salcudean, S., et al.
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Examiner Name	K. Chang
Attorney Docket Number	IMM1P066.RE

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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AY	BAIGRIE, "Electric Control Loading - A Low Cost, High Performance Alternative," Proceedings, pp. 247-254, November 6-8, 1990.	
	AZ	BROOKS et al., "Hand Controllers for Teleoperation - A State-of-the-Art Technology Survey and Evaluation," JPL Publication 85-11; NASA-CR-175890; N85-28559, pp. 1-84, 03/1/1985.	
	BA	JONES et al., "A perceptual analysis of stiffness," ISSN 0014-4819 Springer International (Springer-Verlag); Experimental Brain Research, Vol. 79, No. 1, pp. 150-156, 1990.	
	BB	SNOW et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. MPO-17851; JPL Case No. 5348, pp. 1-4, 06/15/1989.	
	BC	OUH-YOUNG, "Force Display in Molecular Docking," Order No. 9034744, p. 1-369, 1990.	
	BD	TADROS, "Control System Design for a Three Degree of Freedom Virtual Environment Simulator Using Motor/Brake Pair Actuators, MIT Archive © Massachusetts Institute of Technology, pp. 1-88, February 1990.	
	BE	GOTOW et al., "Controlled Impedance Test Apparatus for Studying Human Interpretation of Kinesthetic Feedback," WA11-11:00, pp. 332-337	
	BF	STANLEY et al., "Computer Simulation of Interacting Dynamic Mechanical Systems Using Distributed Memory Parallel Processors," DSC-Vol. 42, Advances in Robotics, pp. 55-61, ASME 1992.	
	BG	RUSO, "Controlling Dissipative Magnetic Particle Brakes in Force Reflective Devices," DSC-Vol. 42, Advances in Robotics, pp. 63-70, ASME 1992.	
	BH	PATRICK et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," Cooperative Intelligent Robotics in Space, Rui J. deFigueiredo et al., Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990.	
	BI	ADELSTEIN, "A Virtual Environment System For The Study of Human Arm Tremor," Ph.D. Dissertation, Dept. of Mechanical Engineering, MIT, June 1989.	
	BJ	BEJCZY, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," Science, Vol. 208, No. 4450, pp. 1327-1335, 1980.	
	BK	BEJCZY, "Generalization of Bilateral Force-Reflecting Control of Manipulators," Proceedings Of Fourth CISM-IFTOMM, Sep. 8-12, 1981.	
	BL	MCAFFEE, "Teleoperator Subsystem/Telerobot Demonstrator: Force Reflecting Hand Controller Equipment Manual," JPL 1988.	

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	BM	SHIMOGA, "Finger Force and Touch Feedback Issues in Dexterous Telemanipulation," Proceedings of Fourth Annual Conference on Intelligent Robotic Systems for Space Exploration, Rensselaer Polytechnic Institute, Sep. 30 - Oct. 1, 1992.	
	BN	IBM Technical Disclosure Bulletin, "Mouse Ball-Actuating Device With Force and Tactile Feedback," Vol. 32, No. 9B, February 1990.	
	BO	TERRY et al., "Tactile Feedback In A Computer Mouse," Proceedings of Fouteenth Annual Northeast Bioengineering Conference, University of New Hampshire, March 10-11, 1988.	
	BP	HOWE, "A Force-Reflecting Teleoperated Hand System for the Study of Tactile Sensing in Precision Manipulation," Proceedings of the 1992 IEEE International Conference on Robotics and Automation, Nice, France, May 1992.	
	BQ	RABINOWITZ et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contactor area," Journal of The Acoustical Society of America, Vol. 82, No. 4, Ocotober 1987.	
	BR	BEJCZY et al., "Kinesthetic Coupling Between Operator and Remote Manipulator," International Computer Technology Conference, The American Society of Mechanical Engineers, San Francisco, CA, August 12-15, 1980.	
	BS	BEJCZY et al., "A Laboratory Breadboard System For Dual-Arm Teleoperation," SOAR '89 Workshop, JSC, Houston, TX, July 25-27, 1989.	
	BT	BEJCZY, et al., "Universal Computer Control System (UCCS) For Space Telerobots," CH2413-3/87/0000/0318501.00 1987 IEEE, 1987.	

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